

|  |  |  |  |                                      |                                       |  |
|--|--|--|--|--------------------------------------|---------------------------------------|--|
| <b>SOLICITATION, OFFER AND AWARD</b>   |  | 1. THIS CONTRACT IS A RATED ORDER<br>UNDER DPAS (15 CFR 350)   |  | RATING<br><b>DOC9</b>                | PAGE OF<br><b>1</b>   <b>22</b> PAGES |  |
| 2. CONTRACT NO.  | 3. SOLICITATION NO.<br><b>N00173-01-R-DL07</b> | 4. TYPE OF SOLICITATION<br><input type="checkbox"/> SEALED BID (IFB)<br><input checked="" type="checkbox"/> NEGOTIATED (RFP) |  | 5. DATE ISSUED<br><b>9 August 01</b> | 6. REQUISITION/PURCHASE NO.           |  |
| 7. ISSUED BY<br><b>CONTRACTING OFFICER<br/>NAVAL RESEARCH LABORATORY<br/>ATTN: CODE : 3220.DL<br/>WASHINGTON DC 20375-5326</b> |  | CODE<br><b>N00173</b>  | 8. ADDRESS OFFER TO (If other than Item 7) |                                      |                                       |  |

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

### SOLICITATION

9. Sealed offers in original and 3 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in Bldg. 222, room 115 until 4:00 local time 10 Sep 2001  
(Hour) (Date)

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-10. All offers are subject to all terms and conditions contained in this solicitation.

|                           |                                |  |
|---------------------------|--------------------------------|--|
| 10. FOR INFORMATION CALL: | A. NAME<br><b>Dian Lockamy</b> | B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS)<br><b>202-767-3782</b> |
|---------------------------|--------------------------------|--|

### 11. TABLE OF CONTENTS

| (✓)                                 | SEC. | DESCRIPTION                           | PAGE(S) | (✓)  | SEC. | DESCRIPTION  | PAGE(S) |
|-------------------------------------|------|---------------------------------------|---------|--|------|--|---------|
| PART I - THE SCHEDULE               |      |                                       |         | PART II - CONTRACT CLAUSES                               |      |  |         |
| <input checked="" type="checkbox"/> | A    | SOLICITATION/CONTRACT FORM            | 1       | <input checked="" type="checkbox"/>                      | I    | CONTRACT CLAUSES   | 11-15   |
| <input checked="" type="checkbox"/> | B    | SUPPLIES OR SERVICES AND PRICES/COSTS | 2       | PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH. |      |  |         |
| <input checked="" type="checkbox"/> | C    | DESCRIPTION/SPECS./WORK STATEMENT     | 2       | <input checked="" type="checkbox"/>                      | J    | LIST OF ATTACHMENTS  | 15      |
| <input checked="" type="checkbox"/> | D    | PACKAGING AND MARKING                 | 3       | PART IV - REPRESENTATIONS AND INSTRUCTIONS               |      |  |         |
| <input checked="" type="checkbox"/> | E    | INSPECTION AND ACCEPTANCE             | 3       | <input checked="" type="checkbox"/>                      | K    | REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS | 16      |
| <input checked="" type="checkbox"/> | F    | DELIVERIES OR PERFORMANCE             | 3       | <input checked="" type="checkbox"/>                      | L    | INSTRS., CONDS., AND NOTICES TO OFFERORS                         | 16-21   |
| <input checked="" type="checkbox"/> | G    | CONTRACT ADMINISTRATION DATA          | 4-7     | <input checked="" type="checkbox"/>                      | M    | EVALUATION FACTORS FOR AWARD                                     | 21-22   |
| <input checked="" type="checkbox"/> | H    | SPECIAL CONTRACT REQUIREMENTS         | 7-11    |  |      |  |         |

### OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within \_\_\_\_\_ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

|  |                  |                  |                  |               |
|--|------------------|------------------|------------------|---------------|
| 13. DISCOUNT FOR PROMPT PAYMENT<br>(See Section I, Clause No. 52-232-8)  | 10 CALENDAR DAYS | 20 CALENDAR DAYS | 30 CALENDAR DAYS | CALENDAR DAYS |
|  | %                | %                | %                | %             |
| 14. ACKNOWLEDGMENT OF AMENDMENTS<br>(The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated: | AMENDMENT NO.    | DATE             | AMENDMENT NO.    | DATE          |
|  |                  |                  |                  |               |
|  |                  |                  |                  |               |

|  |  |          |   |
|--|--|----------|---|
| 15A. NAME AND ADDRESS OF OFFEROR       | CODE   | FACILITY | 16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print) |
| 15B. TELEPHONE NO. (Include area code) | 15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE. |          | 17. SIGNATURE   |
|  |  |          | 18. OFFER DATE  |

### AWARD (To be completed by Government)

|   |            |   |
|---|------------|---|
| 19. ACCEPTED AS TO ITEMS NUMBERED   | 20. AMOUNT | 21. ACCOUNTING AND APPROPRIATION  |
| 22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:<br><input type="checkbox"/> 10 U.S.C. 2304(c) ( ) <input type="checkbox"/> 41 U.S.C. 253(c) ( ) |            | 23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified) |
| 24. ADMINISTERED BY (If other than Item 7)  | CODE       | 25. PAYMENT WILL BE MADE BY   |
| 26. NAME OF CONTRACTING OFFICER (Type or print)   |            | 27. UNITED STATES OF AMERICA<br><br>(Signature of Contracting Officer)        |
|   |            | 28. AWARD DATE  |

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

**PART I - THE SCHEDULE  
SECTION B  
SUPPLIES OR SERVICES AND PRICES/COSTS**

**B-1 SUPPLIES/SERVICES AND COSTS**

| ITEM<br>NUMBER   | SUPPLIES/SERVICES   | ESTIMATED<br>COST | FIXED<br>FEE | ESTIMATED COST<br>PLUS FIXED FEE |
|--|---|-------------------|--------------|----------------------------------|
| <b>Base Year</b>   |   |                   |              |                                  |
| 0001   | The Contractor shall conduct research in accordance with Section C. | \$                | \$           | \$                               |
| 0002   | Data in accordance with Exhibit A (DD 1423)                         | * NSP             | * NSP        | * NSP                            |
| <b>TOTAL ESTIMATED COST PLUS FIXED FEE<br/>Including all options, if exercised</b> |   |                   | \$           | \$                               |

\* *Not Separately Priced*

**NOTICE TO OFFERORS:** In addition to inserting the estimated cost and fixed fee for the base year above, the estimated cost and fixed fee for each optional extension of the term of the contract are to be inserted in Section H.

**SECTION C  
DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK**

**C-1 STATEMENT OF WORK**

The work and services to be performed hereunder shall be subject to the requirements and standards contained in Attachment (1), Statement of Work, with Exhibit A, Contract Data Requirements List, and all other Attachments cited in Section J, which are incorporated by reference into Section C.

**C-2 REQUIREMENTS FOR ON-SITE CONTRACTORS**

For those portions of the work under this contract performed at any NRL site, the contractor shall comply with the Requirements for On-Site Contractors dated 8 December 2000 which are hereby incorporated by reference. The full text is available at <http://heron.nrl.navy.mil/contracts/home.htm>.

**SECTION D  
PACKAGING AND MARKING**

**D-1 PACKAGING AND MARKING**

Preservation, packaging, packing and marking of all deliverable contract line items must conform to normal commercial packing standards to assure safe delivery at destination.

**SECTION E  
INSPECTION AND ACCEPTANCE**

**E-1 INSPECTION AND ACCEPTANCE CLAUSES INCORPORATED BY REFERENCE**

**FAR CLAUSE    TITLE**

- |          |   |  |
|----------|---|--|
| 52.246-8 | - | Inspection Of Research And Development - Cost Reimbursement (MAR 2001) |
| 52.246-9 | - | Inspection Of Research And Development (Short Form) (APR 1984)         |

**DFARS CLAUSE    TITLE**

- |              |   |   |
|--------------|---|---|
| 252.246-7000 | - | Material Inspection And Receiving Report (DEC 1991) |
|--------------|---|---|

**E-2 INSPECTION AND ACCEPTANCE**

Inspection and acceptance of the final delivery will be accomplished by the Technical Manager (TM) or Contracting Officer Representative (COR) designated in Section G of this contract. Inspection and acceptance will be performed at the Naval Research Laboratory, Washington DC 20375-5320.

**SECTION F  
DELIVERIES OR PERFORMANCE**

**F-1 DELIVERIES OR PERFORMANCE CLAUSES INCORPORATED BY REFERENCE:**

**FAR CLAUSE    TITLE**

- |           |   |   |
|-----------|---|---|
| 52.242-15 | - | Stop-Work Order (AUG 1989) - Alternate I (APR 1984) |
| 52.247-34 | - | F.O.B. Destination (NOV 1991)                       |

**F-2 PERIOD AND PLACE OF PERFORMANCE**

- (a) The term of this contract is from date of contract award through 12 months thereafter, with four (4) options that will extend the period of performance for an additional 12 months each, if exercised.
- (b) The principal place of performance of this contract shall be at the Naval Research Laboratory, Washington DC.

**SECTION G**  
**CONTRACT ADMINISTRATION DATA**

**G-1 PROCURING OFFICE REPRESENTATIVE**

In order to expedite administration of the contract, the Administrative Contracting Officer (ACO) will direct inquiries to the appropriate office listed below. Please do not direct routine inquiries to the person listed in Item 20A on Standard Form 26.

Contract Matters-

Security Matters- \*

Safety Matters- \*

Patent Matters- \*

Release of Data- \*

The ACO will forward invention disclosures and reports directly to the Associate Counsel for Patents, Code 1008.2, Naval Research Laboratory, Washington DC 20375-5320. The Associate Counsel for Patents will return the reports along with a recommendation to the Administrative Contracting Officer. The Associate Counsel for Patents will represent the Contracting Officer with regard to invention reporting matters arising under this contract.

*( \* To be completed at time of award )*

**G-2 CONTRACTING OFFICER'S REPRESENTATIVE (COR) - FUNCTIONS AND LIMITATIONS**

\* is hereby designated the cognizant COR who will represent the Contracting Officer in the administration of technical details within the scope of this contract and inspection and acceptance. The COR is not otherwise authorized to make any representations or commitments of any kind on behalf of the Contracting Officer or the Government. The COR does not have the authority to alter the Contractor's obligations or change the specifications in the contract. If, as a result of technical discussions, it is desirable to alter contract obligations or statements of work, a modification must be issued in writing and signed by the Contracting Officer. The COR is responsible for reviewing the bills and charges submitted by the Contractor and informing the ACO of areas where exceptions are to be taken.

*( \* To be completed at time of award )*

**G-3 TECHNICAL DIRECTION MEMORANDUM (TDM)**

- (a) For the purposes of this clause, technical direction includes the following:
- (1) Direction to the Contractor which shifts work emphasis between work areas or tasks, requires pursuit of certain lines of inquiry, fills in details or otherwise describes work which will accomplish the objectives described in the statement of work;

- (2) Guidelines to the Contractor which assist in interpretation of drawings, specifications or technical portions of work description.
- (b) Technical instructions must be within the scope of work stated in the contract. Technical instructions may not be used to:
  - (1) Assign additional work under the contract;
  - (2) Direct a change as defined in the contract clause entitled "Changes";
  - (3) Increase or decrease the estimated contract cost, the fixed fee, or the time required for contract performance; or
  - (4) Change any of the terms, conditions or specifications of the contract
- (c) The TDM shall be written by the Contracting Officer's Representative (COR), with the original given to the Contractor and a copy retained in the CORs file. Technical direction may be issued orally only in emergency situations. If technical direction is issued orally, a TDM must follow within two (2) working days from the date of the oral direction. Amendments, corrections, or changes to TDMs shall also be in written format and shall include all the information set forth in paragraph (e) below.
- (d) A TDM shall be considered issued when the Government deposits it in the mail, or if transmitted by other means, when it is physically delivered to the contractor.
- (e) TDMs shall include, but not be limited to, the following information:
  - (1) Date of TDM,
  - (2) Contract Number,
  - (3) Reference to the relevant portion or item in the Statement of Work,
  - (4) The specific technical direction or clarification, and
  - (5) The signature of the COR.
- (f) CORs shall retain all files containing TDMs for a period of two (2) years after the final contract completion date.
- (g) The only individual authorized in any way to amend or modify any of the terms of this contract shall be the Contracting Officer. When, in the opinion of the Contractor, any technical direction calls for effort outside the scope of the contract or inconsistent with this special provision, the Contractor shall notify the Contracting Officer in writing within ten (10) working days after its receipt.

#### **G-4 SUBCONTRACTORS/CONSULTANTS**

- (a) Advance notification or requests for consent pursuant to the contract clause entitled "Subcontracts" (FAR 52.244-2) shall be directed to the cognizant administrative contracting officer (ACO).
- (b) The following subcontractors/consultants have been identified in the Contractor's proposal as necessary for performance of this contract:

Subcontractor/Consultant Name

Estimated Cost

*(Paragraph (b) will be included and filled in at time of award if subcontractor/consultants are proposed by the successful offeror)*

**G-5 NAPS 5252.232-9001 - SUBMISSION OF INVOICES (COST-REIMBURSEMENT, TIME-AND-MATERIALS, LABOR-HOUR, OR FIXED PRICE INCENTIVE (JUL 1992)**

(a) "Invoice" as used in this clause includes contractor requests for interim payments using public vouchers (SF 1034) but does not include contractor requests for progress payments under fixed price incentive contracts.

(b) The Contractor shall submit invoices and any necessary supporting documentation, in an original and 4 copies, to the contract auditor at the following address:

*(To be completed at time of award)*

unless delivery orders are applicable, in which case invoices will be segregated by individual order and submitted to the address specified in the order. In addition, an information copy shall be submitted to [See Section G for designated COR]. Following verification, the contract auditor will forward the invoice to the designated payment office for payment in the amount determined to be owing, in accordance with the applicable payment (and fee) clause(s) of this contract.

(c) Invoices requesting interim payments shall be submitted no more than once every two weeks, unless another time period is specified in the Payments clause of this contract. For indefinite delivery type contracts, interim payment invoices shall be submitted no more than once every two weeks for each delivery orders. There shall be a lapse of no more than 30 calendar days between performance and submission of an interim payment invoice.

(d) In addition to the information identified in the Prompt Payment clause herein, each invoice shall contain the following information, as applicable:

- (1) Contract line item number (CLIN)
- (2) Subline item number (SLIN)
- (3) Accounting Classification Reference Number(ACRN)
- (4) Payment terms
- (5) Procuring activity
- (6) Date supplies provided or services performed
- (7) Costs incurred and allowable under the contract
- (8) Vessel (e.g., ship, submarine or other craft) or system for which supply/service is provided

(e) A DD Form 250, "Material Inspection and Receiving Report",

- ☐ is required with each invoice submittal.  
☒ is required only with the final invoice.  
☐ is not required.

(f) A Certificate of Performance

- ☐ shall be provided with each invoice submittal.  
☒ is not required.

(g) The Contractor's final invoice shall be identified as such, and shall list all other invoices (if any) previously tendered under this contract.

(h) Cost of performance shall be segregated, accumulated and invoiced to the appropriate ACRN categories to the extent possible. When such segregation of costs by ACRN is not possible for invoices submitted with CLIN/SLINS with more than one ACRN, an allocation ratio shall be established in the same ratio as the obligations cited in the accounting data so that costs are allocated on a proportional basis.

#### **G-6 INCREMENTAL FUNDING**

Pursuant to the Limitation of Funds clause (FAR 52.232-22), the total amount allotted to this contract is \$\* and it is estimated that this amount is sufficient for contract performance through \*.

*(\*this provision will be included and completed at time of award, if applicable)*

#### **G-7 INFORMATIONAL SUBLINE ITEMS**

It is anticipated that the research and development services performed under this contract will be paid for from multiple sources of funds. Informational subline items will be established as necessary to identify each accounting citation classification.

#### **G-8 PAYMENT INSTRUCTIONS FOR MULTIPLE ACCOUNTING CLASSIFICATION CITATIONS (COST-REIMBURSEMENT)**

The purpose of these instructions is to permit the paying office to charge the accounting classification citations in the contract in a manner that reflects the performance of the contract. These instructions do not create any obligation on the part of the Government or the contractor nor do they in any way alter any obligation created by any other provision of the contract. Invoices should be paid from available ACRNs in the following order:

- (a) ACRNs cited on the contractor's invoice.
- (b) On a proportional basis from any ACRNs assigned to funds which will cancel at the end of the current fiscal year.
- (c) The ACRN assigned to the following line of accounting:  
97X4930.NH4A 000 77777 0 000173 2F 000000 N00173Z45000.
- (d) If funds appropriated in more than one fiscal year are allotted to the contract, the ACRN assigned to the oldest allotment of funds.
- (e) On a proportional basis from all ACRNs assigned to allotments of funds appropriated in a single fiscal year.

### **SECTION H SPECIAL CONTRACT REQUIREMENTS**

#### **H-1 TYPE OF CONTRACT**

This is a \*

*(\*To be completed at time of award)*

#### **H-2 ONR 5252.237-9705 - KEY PERSONNEL (DEC 88)**

- (a) The Contractor agrees to assign to the contract tasks those persons whose resumes were submitted with its proposal and who are necessary to fulfill the requirements of the contract as "key personnel". No substitutions may be made except in accordance with this clause.
- (b) The Contractor understands that during the first ninety (90) days of the contract performance period, no personnel substitutions will be permitted unless these substitutions are unavoidable because of the incumbent's sudden illness, death or termination of employment. In any of these

events, the Contractor shall promptly notify the Contracting Officer and provide the information described in paragraph (c) below. After the initial ninety (90) day period the Contractor must submit to the Contracting Officer all proposed substitutions, in writing, at least fifteen (15) days in advance (thirty (30) days if security clearance must be obtained) of any proposed substitution and provide the information required by paragraph (c) below.

(c) Any request for substitution must include a detailed explanation of the circumstances necessitating the proposed substitution, a resume for the proposed substitute, and any other information requested by the Contracting Officer. Any proposed substitute must have qualifications equal to or superior to the qualifications of the incumbent. The Contracting Officer or his/her authorized representative will evaluate such requests and promptly notify the Contractor of his/her approval or disapproval thereof.

(d) In the event that any of the identified key personnel cease to perform under the contract and the substitute is disapproved, the contract may be immediately terminated in accordance with the Termination clause of the contract.

The following are identified as key personnel:

Labor Category  
Principal Engineer\*  
Senior Engineer\*

*(\*To be completed at time of award)*

### **H-3 ONR 5252.216-9706 - LEVEL OF EFFORT (DEC 88)**

(a) The Contractor agrees to provide the total level of effort specified in the next sentence in performance of the work described in this contract. The total level of effort for performance of this contract shall be 11,440 total hours of direct labor for the basic award, and 11,440 total hours for each option period, if exercised, including subcontractor direct labor for those subcontractors specifically identified in the Contractor's proposal as having hours included in the proposed level of effort. A breakdown of labor categories and hours is set forth in paragraph (k) below.

(b) The level of effort for this contract shall be expended at an average rate of 953 hours per month. It is understood and agreed that the rate of hours per month may fluctuate in pursuit of the technical objective, provided such fluctuation does not result in the use of the total hours of effort prior to the expiration of the term of the contract.

(c) The Contractor is required to notify the Contracting Officer when any of the following situations occur, or are anticipated to occur: If during any three consecutive months the monthly average is exceeded by 25% or, if at any time it is forecast that during the last three months of the contract less than 50% of the monthly average will be used during any given month; or, when 85% of the total level of effort has been expended.

(d) If, during the term of the contract, the Contractor finds it necessary to accelerate the expenditure of direct labor to such an extent that the total hours of effort specified would be used prior to the expiration of the term, the Contractor shall notify the Contracting Officer in writing, setting forth the acceleration required, the probable benefits which would result, and an offer to undertake the acceleration at no increase in the estimated cost or fixed fee together with an offer setting forth a proposed level of effort, cost breakdown, and proposed fixed fee for continuation of the work until expiration of the term hereof. The offer shall provide that the work proposed will be subject to the terms and conditions of this contract and any additions or changes required by then current law, regulations, or directives, and that the offer, with a written notice of acceptance by the Contracting



Officer, shall constitute a binding contract. The Contractor shall not accelerate any effort until receipt of such written approval by the Contracting Officer. Any agreement to accelerate will be formalized by contract modification.

(e) The Contracting Officer may, by written order, direct the Contractor to accelerate the expenditure of direct labor such that the total hours of effort specified in paragraph (a) above would be used prior to the expiration of the term. This order shall specify the acceleration required and the resulting revised term. The Contractor shall acknowledge this order within five days of receipt.

(f) If the total level of effort specified in paragraph (a) above is not provided by the Contractor during the term of this contract, the Contracting Officer shall either (i) reduce the fixed fee of this contract as follows:

$$\text{Fee Reduction} = \text{Fixed Fee} \times \frac{(\text{Required LOE Hours} - \text{Expended LOE Hours})}{\text{Required LOE Hours}}$$

or (ii) subject to the provisions of the clause of this contract entitled "Limitation of Cost," require the Contractor to continue to perform the work until the total number of hours of direct labor specified in paragraph (a) shall have been expended, at no increase in the fixed fee of this contract.

(g) In the event the government fails to fully fund the contract in a timely manner, the term of the contract may be extended accordingly with no change to cost or fee. If the government fails to fully fund the contract, the fee will be adjusted in direct proportion to that effort which was performed.

(h) Notwithstanding any of the provisions in the above paragraphs, the Contractor may furnish hours up to five percent in excess of the total hours specified in paragraph (a) above, provided that the additional effort is furnished within the term hereof, and provided further that no increase in the estimated cost or fixed fee is required, and no adjustment in the fixed fee shall be made provided that the Contractor has delivered at least 95% of the level of effort required in paragraph (a) above.

(i) It is understood that the mix of labor categories provided by the Contractor under the contract, as well as the distribution of effort among those categories, may vary considerably from the initial mix and distribution of effort which was estimated by the government or proposed by the Contractor.

(j) Nothing herein shall be construed to alter or waive any of the rights or obligations of either party pursuant to the Clause entitled "Limitation of Costs" or "Limitation of Funds," either of which clauses as incorporated herein applies to this contract.

(k) The anticipated breakdown by labor category of the total level of effort for all years is as follows:

| <b>Labor Category</b> | <b>Base Year<br/>Hours</b> | <b>Option<br/>I</b> | <b>Option<br/>II</b> | <b>Option<br/>III</b> | <b>Option<br/>IV</b> |
|-----------------------|----------------------------|---------------------|----------------------|-----------------------|----------------------|
| Principal Engineer    | 2080                       | 2080                | 2080                 | 2080                  | 2080                 |
| Software Programmer   | 4160                       | 4160                | 4160                 | 4160                  | 4160                 |
| Senior Engineer       | 2080                       | 2080                | 2080                 | 2080                  | 2080                 |
| System Engineer       | 2080                       | 2080                | 2080                 | 2080                  | 2080                 |
| Engineering Assistant | 1040                       | 1040                | 1040                 | 1040                  | 1040                 |
| <b>Total</b>          | <b>11,440</b>              | <b>11,440</b>       | <b>11,440</b>        | <b>11,440</b>         | <b>11,440</b>        |

#### **H-4 ONR 5252.235-9714 - REPORT PREPARATION (FEB 97)**

Scientific or technical reports prepared by the Contractor and deliverable under the terms of this contract will be prepared in accordance with format requirements contained in ANSI/NISO Z39.18-1995, "Scientific and Technical Reports: Elements, Organization, and Design." [NOTE: ANSI Z39.18 may be obtained from NISO Press Fulfillment Center, P. O. Box 338, Oxon Hill, MD. 20750-

0338.Telephone 1-800-282-6476]

#### **H-5 ELECTRONIC AND INFORMATION TECHNOLOGY (EIT)**

In accordance with Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794d), all EIT supplies and services provided under this contract must comply with the applicable accessibility standards issued by the Architectural and Transportation Barriers Compliance Board at 36 CFR part 1194 (see FAR Subpart 39.2). Electronic and information technology (EIT) is defined at FAR 2.101.

#### **H-6 OPTION TO EXTEND THE TERM OF THE CONTRACT**

This contract shall be renewable at the unilateral option of the Government by the Contracting Officer giving written notice of renewal to the Contractor within the existing term of the contract. The Government may exercise its option to renew the contract a total of Four (4) times and each such renewal shall extend the term of the contract by twelve (12) months. The Contractor agrees that performance under each such renewal shall be accomplished in accordance with all of the terms and conditions of this contract and at the estimated cost and fixed fee set forth below:

##### **First Option**

|                                |    |
|--------------------------------|----|
| Estimated Cost:                | \$ |
| Fixed Fee:                     | \$ |
| Estimated Cost Plus Fixed Fee: | \$ |

##### **Second Option**

|                                |    |
|--------------------------------|----|
| Estimated Cost:                | \$ |
| Fixed Fee:                     | \$ |
| Estimated Cost Plus Fixed Fee: | \$ |

##### **Third Option**

|                                |    |
|--------------------------------|----|
| Estimated Cost:                | \$ |
| Fixed Fee:                     | \$ |
| Estimated Cost Plus Fixed Fee: | \$ |

##### **Fourth Option**

Estimated Cost: \$

Fixed Fee: \$

Estimated Cost Plus Fixed Fee: \$

#### **H-7 ON-SITE USE OF GOVERNMENT PROPERTY**

Government facilities and equipment specified or approved for use in the performance of any portion of the contract at the U.S. Naval Research Laboratory (NRL) or any of its field sites may be used by the contractor's personnel on a rent free basis. All such property shall be considered to remain in the possession and control of the NRL for property responsibility and accountability purposes.

#### **H-8 REPRESENTATIONS AND CERTIFICATIONS**

The Contractor's completed Representations, Certifications, and Other Statements of Offerors or Respondents is incorporated herein by reference in any resultant award.

### **PART II - CONTRACT CLAUSES**

#### **SECTION I**

#### **CONTRACT CLAUSES**

#### **I-1 52.252-2 - CLAUSES INCORPORATED BY REFERENCE (FEB 1998)**

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far>

<http://heron.nrl.navy.mil/contracts/home.htm>

#### **a. FEDERAL ACQUISITION REGULATION CLAUSES**

| <b>FAR CLAUSE</b> | <b>TITLE</b>  |
|-------------------|---|
| 52.202-1          | - Definitions (MAR 2001)  |
| 52.203-3          | - Gratuities (APR 1984)   |
| 52.203-5          | - Covenant Against Contingent Fees (APR 1984)   |
| 52.203-6          | - Restrictions On Subcontractor Sales To The Government (JUL 1995)                            |
| 52.203-7          | - Anti-Kickback Procedures (JUL 1995)   |
| 52.203-8          | - Cancellation, Rescission, And Recovery Of Funds For Illegal Or Improper Activity (JAN 1997) |
| 52.203-10         | - Price Or Fee Adjustment For Illegal Or Improper Activity (JAN 1997)                         |
| 52.203-12         | - Limitation On Payments To Influence Certain Federal Transactions (JUN 1997)                 |

- 52.204-2 - Security Requirements (AUG 1996)
- 52.204-4 - Printed Or Copied Double-Sided On Recycled Paper (AUG 2000)
- 52.209-6 - Protecting The Government's Interest When Subcontracting With Contractors Debarred, Suspended, Or Proposed For Debarment (JUL 1995)
- 52.211-15 - Defense Priority And Allocation Requirements (SEP 1990)
- 52.215-2 - Audit And Records-Negotiation (JUNE 1999)
- 52.215-8 - Order Of Precedence - Uniform Contract Format (OCT 1997)
- 52.215-11 - Price Reduction For Defective Cost Or Pricing Data - Modifications (OCT 1997)
- 52.215-13 - Subcontractor Cost Or Pricing Data Modifications (OCT 1997)
- 52.215-14 - Integrity Of Unit Prices (OCT 1997)
- 52.215-15 - Pension Adjustments And Asset Reversions (DEC 1998)
- 52.215-17 - Waiver Of Facilities Capital Cost Of Money (OCT 1997)  
( *will be included if the successful offeror does not propose facilities capital cost of money*)
- 52.215-18 - Reversion Or Adjustment Of Plans For Post-Retirement Benefits (PRB) Other Than Pensions (OCT 1997)
- 52.215-19 - Notification Of Ownership Changes (OCT 1997)
- 52.215-21 - Requirements For Cost Or Pricing Data Or Information Other Than Cost or Pricing Data -Modifications (OCT 1997)
- 52.216-7 - Allowable Cost And Payment (MAR 2000) (*If the contract is with an educational institution, modify the clause by deleting from paragraph (a) "Subpart 31.2" and substitute "Subpart 31.3". If the contract is with a state or local government, delete from paragraph (a) "Subpart 31.2" and substitute "Subpart 31.6". If the contract is with a nonprofit other than an educational institution, a state or local government, or a nonprofit organization exempted under OMB Circular A-122, modify the clause by deleting from paragraph (a) "Subpart 31.2" and substituting "Subpart 31.7".*)
- 52.216-8 - Fixed-Fee (MAR 1997)
- 52.219-6 - Notice Of Total Small-Business Set-Aside (JUL 1996)
- 52.219-8 - Utilization Of Small Business Concerns (OCT 2000)
- 52.219-14 - Limitations On Subcontracting (DEC 1996)
- 52.222-2 - Payment For Overtime Premiums (JUL 1990) -The Use Of Overtime Is Authorized Under This Contract If The Overtime Premium Does Not Exceed "0"
- 52.222-3 - Convict Labor (AUG 1996)
- 52.222-19 - Child Labor – Cooperation With Authorities And Remedies (FEB 2001)
- 52.222-21 - Prohibition of Segregated Facilities (FEB 1999)
- 52.222-26 - Equal Opportunity (FEB 1999)
- 52.222-35 - Affirmative Action For Disabled Veterans And Veterans Of The Vietnam Era (APR 1998)
- 52.222-36 - Affirmative Action For Workers With Disabilities (JUN 1998)
- 52.222-37 - Employment Reports On Disabled Veterans And Veterans Of The Vietnam Era (JAN 1999)
- 52.223-3 - Hazardous Material Identification And Material Safety Data (JAN 1997)
- 52.223-5 - Pollution Prevention And Right-To-Know Information (APR 1998)
- 52.223-6 - Drug-Free Workplace (MAR 2001)
- 52.223-10 - Waste Reduction Program (AUG 2000)
- 52.223-14 - Toxic Chemical Release Reporting (OCT 2000)

- 52.225-13 - Restrictions On Certain Foreign Purchases (JUL 2000)
- 52.226-1 - Utilization Of Indian Organizations And Indian-Owned Economic Enterprises (JUN 2000)
- 52.227-1 - Authorization And Consent (JUL 1995)- Alternate I (APR 1984)
- 52.227-2 - Notice And Assistance Regarding Patent And Copyright Infringement (AUG 1996)
- 52.227-3 - Patent Indemnity (APR 1984)
- 52.227-10 - Filing Of Patent Application- Classified Subject Matter (APR 1984)
- 52.227-11 - Patent Rights - Retention By The Contractor (Short Form) (JUN 1997)  
*(will be included if the successful offeror is a small business or a non-profit organization)*
- 52.228-7 - Insurance - Liability To Third Persons (MAR 1996)
- 52.232-17 - Interest (JUN 1996)
- 52.232-18 - Availability Of Funds (APR 1984)
- 52.232-20 - Limitation Of Cost (APR 1984) *(Applicable when the contract or task order is fully funded)*
- 52.232-22 - Limitation Of Funds (APR 1984) *(Applicable when the contract or task order is not fully funded)*
- 52.232-23 - Assignment Of Claims (JAN 1986) Alternate I (APR 1984)
- 52.232-25 - Prompt Payment (MAR 2001)
- 52.232-33 - Payment By Electronic Funds Transfer-Central Contractor Registration (MAY 1999)
- 52.233-1 - Disputes (DEC 1998)
- 52.233-3 - Protest After Award (AUG 1996) - Alternate I (JUN 1985)
- 52.237-2 - Protection Of Government Buildings, Equipment And Vegetation (APR 1984)
- 52.237-3 - Continuity Of Services (JAN 1991)
- 52.237-10 - Identification of Uncompensated Overtime (OCT 1997)
- 52.242-1 - Notice Of Intent To Disallow Costs (APR 1984)
- 52.242-3 - Penalties For Unallowable Costs (MAR 2001)
- 52.242-4 - Certification of Final Indirect Costs (JAN 1997)
- 52.242-13 - Bankruptcy (JUL 1995)
- 52.243-2 - Changes - Cost-Reimbursement (AUG 1987) - Alternate V (APR 1984)
- 52.244-2 - Subcontracts (AUG 1998) - Alternate I (AUG 1998)
- 52.244-5 - Competition In Subcontracting (DEC 1996)
- 52.244-6 - Subcontracts For Commercial Items And Commercial components (OCT 1998)
- 52.245-5 - Government Property (Cost-Reimbursement, Time-And-Material, Or Labor-Hour Contracts) (JAN 1986) (DEVIATION)
- 52.246-23 - Limitation Of Liability (FEB 1997)
- 52.246-25 - Limitation Of Liability - Services (FEB 1997)
- 52.247-1 - Commercial Bill Of Lading Notations (APR 1984)
- 52.247-63 - Preference For U. S. Flag Carriers (JAN 1997)
- 52.249-6 - Termination (Cost-Reimbursement) (SEP 1996)
- 52.249-14 - Excusable Delays (APR 1984)
- 52.251-1 - Government Supply Sources (APR 1984)
- 52.252-6 - Authorized Deviations in Clauses (APR 1984)( fill in Defense Federal Acquisition Regulation Supplement (48 CFR Chapter 2))
- 52.253-1 - Computer Generated Forms (JAN 1991)

**b. DEPARTMENT OF DEFENSE FEDERAL ACQUISITION REGULATION CLAUSES**

| <b>DFARS CLAUSE</b> | <b>TITLE</b>  |
|---------------------|---|
| 252.201-7000        | - Contracting Officer's Representative (DEC 1991)   |
| 252.203-7001        | - Prohibition On Persons Convicted Of Fraud Or Other Defense Contract Related Felonies (MAR 1999)   |
| 252.203-7002        | - Display of DoD Hotline Poster (DEC 1991)  |
| 252.204-7003        | - Control Of Government Personnel Work Product (APR 1992)   |
| 252.204-7004        | - Required Central Contractor Registration (MAR 2000)   |
| 252.204-7005        | - Oral Attestation Of Security Responsibilities (AUG 1999)  |
| 252.205-7000        | - Provision Of Information To Cooperative Agreement Holders (DEC 1991)  |
| 252.209-7000        | - Acquisition From Subcontractors Subject To On-Site Inspection Under The Intermediate-Range Nuclear Forces (INF) Treaty (NOV 1995)   |
| 252.209-7004        | - Subcontracting With Firms That Are Owned Or Controlled By The Government Of A Terrorist Country (MAR 1998)  |
| 252.215-7000        | - Pricing Adjustments (DEC 1991)252.215-7002 -Cost Estimating System Requirements (OCT 1998)  |
| 252.223-7001        | - Hazard Warning Labels (DEC 1991)  |
| 252.223-7004        | - Drug-Free Work Force (SEP 1988)   |
| 252.223-7006        | - Prohibition On Storage And Disposal Of Toxic And Hazardous Materials (APR 1993)   |
| 252.225-7012        | - Preference For Certain Domestic Commodities (AUG 2000)  |
| 252.225-7021        | - Trade Agreements (APR 2000)   |
| 252.225-7026        | - Reporting Of Contract Performance Outside The United States (JUN 2000)  |
| 252.225-7043        | - Antiterrorism/Force Protection Policy For Defense Contractors Outside the United States (JUN 1998)(fill in: Naval Criminal Investigative service (NCIS), Code 24, telephone, DSN 228-9113 or commercial (202) 433-9113) |
| 252.225-7031        | - Secondary Arab Boycott Of Israel (JUN 1992)   |
| 252.227-7014        | - Rights In Noncommercial Computer Software And Noncommercial Computer Software Documentation (JUN 1995)  |
| 252.227-7016        | - Rights In Bid Or Proposal Information (JUN 1995)  |
| 252.227-7019        | - Validation Of Asserted Restrictions--Computer Software (JUN 1995)   |
| 252.227-7025        | - Limitations On The Use Or Disclosure Of Government-Furnished Information Marked With Restrictive Legends (JUN 1995)   |
| 252.227-7034        | - Patents--Subcontracts (APR 1984)  |
| 252.227-7037        | - Validation Of Restrictive Markings On Technical Data (SEP 1999)   |
| 252.227-7039        | - Patents--Reporting Of Subject Inventions (APR 1990)   |
| 252.231-7000        | - Supplemental Cost Principles (DEC 1991)   |
| 252.232-7000        | - Advanced Payment Pool (DEC 1991)  |
| 252.235-7010        | - Acknowledgment Of Support And Disclaimer (MAY 1995)   |
| 252.235-7011        | - Final Scientific Or Technical Report (SEP 1999)   |
| 252.242-7000        | - Post Award Conference (DEC 1991)  |
| 252.243-7002        | - Requests For Equitable Adjustment (MAR 1998)  |
| 252.245-7001        | - Reports Of Government Property (MAY 1994)   |
| 252.247-7023        | - Transportation Of Supplies By Sea (MAR 2000)  |
| 252.247-7024        | - Notification Of Transportation Of Supplies By Sea (MAR 2000)  |

*(will be included if the successful offeror made a negative response to the inquiry at DFARS 252.247-7022)*

252.251-7000 - Ordering From Government Supply Sources (MAY 1995)

**I-2 FAR 52.223-11 - OZONE-DEPLETING SUBSTANCES (MAR 2001)**

(a) *Definitions.* "Ozone-depleting substance", as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR Part 82 as –

- (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or
- (2) Class II, including, but not limited to, hydrochlorofluorocarbons.

(b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:

**WARNING**

Contains (or manufactured with, if applicable) \*, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

\*The Contractor shall insert the name of the substance(s).

**PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS**  
**SECTION J**  
**LIST OF ATTACHMENTS**

- J-1** Attachment (1) - Statement Of Work - 14 Pages, With Exhibit A - DD Form 1423, Contract Data Requirements List, 6 Pages.
- J-2** Attachment (2) - DD Form 254, Contract Security Classification Specification, Ser: 029 Dated 13 June 2001
- J-3** Attachment (3 ) – Personnel Qualifications, 3 Pages.
- J-4** Attachment (4) – Accounting and Appropriation Data- 1 page. \*

*(\* To be included at time of award)*

**PART IV - REPRESENTATIONS AND INSTRUCTIONS**  
**SECTION - K**  
**REPRESENTATIONS, CERTIFICATIONS**  
**AND OTHER STATEMENTS OF OFFERORS OR RESPONDENTS**

**K-1 Representations, Certifications, and Other Statements of Offerors or Respondents**

Each Offeror must submit a completed Representations, Certifications, and Other Statements Of Offerors or Respondents with its proposal which is available electronically in full text at <http://heron.nrl.navy.mil/contracts/rep&certs.htm>

**K-2 FILL IN FOR FAR 52.219-1 - SMALL BUSINESS PROGRAM REPRESENTATIONS (MAR 2001)**

The fill in information is as follows:

The NAICS code for this acquisition is 541330.

The small business size standard is. \$20,000,000.00.

**SECTION L**  
**INSTRUCTIONS CONDITIONS AND NOTICES**  
**TO OFFERORS OR RESPONDENTS**

**L-1 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)**

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far>

<http://heron.nrl.navy.mil/contracts/home.htm>

| <b>FAR CLAUSE</b> | <b>TITLE</b>  |
|-------------------|---|
| 52.204-6          | - Data Universal Numbering System (DUNS) Number (JUNE 1999)                           |
| 52.215-1          | - Instructions To Offerors- Competitive Acquisition (MAR 2001) Alternate I (OCT 1997) |
| 52.215-16         | - Facilities Capital Cost Of Money (OCT 1997)   |
| 52.219-24         | - Small Disadvantaged Business Participation Program - Targets (OCT 2000)             |
| 52.237-10         | - Identification of Uncompensated Overtime (OCT 1997)                                 |
| 52.252-5          | - Authorized Deviations In Provisions (APR 1984)                                      |



**L-2 FAR 52.211-14 - NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE (SEP 1990)**

Any contract awarded as a result of this solicitation will be a ☐ DX rated order; ☒ DO rated order certified for national use under the Defense Priorities and Allocations system (DPAS) (15 CFR 700), and the Contractor will be required to follow all of the requirements of this regulation.

**L-3 FAR 52.215-20 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997)ALTERNATE IV (OCT 1997)**

- (a) Submission of cost or pricing data is not required.
- (b) Provide information described below
- (c) See L-12, Volume II – Business Proposal.

**L-4 FAR 52.216-1 - TYPE OF CONTRACT (APR 1984)**

The Government contemplates award of a Cost Plus Fixed Fee Term contract resulting from this solicitation.

**L-5 FAR 52.233-2 - SERVICE OF PROTEST (AUG 1996)**

(a) Protests, as defined in Section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO) shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from the Control Desk, Code 3200, Bldg. 222, Rm. 115, Naval Research Laboratory, 4555 Overlook Ave., S.W., Washington DC 20375-5326.

- (a) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

**L-6 DFARS 252.227-7017 - IDENTIFICATION AND ASSERTION OF USE, RELEASE, OR DISCLOSURE RESTRICTIONS (JUN 1995)**

- (a) The terms used in this provision are defined in following clause or clauses contained in this solicitation--
  - (1) If a successful offeror will be required to deliver technical data, the Rights in Technical Data--Noncommercial Items clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.
  - (2) If a successful offeror will not be required to deliver technical data, the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.
- (b) The identification and assertion requirements in this provision apply only to technical data, including computer software documents, or computer software to be delivered with other than unlimited rights. For contracts to be awarded under the Small Business Innovative Research

Program, the notification requirements do not apply to technical data or computer software that will be generated under the resulting contract. Notification and identification is not required for restrictions based solely on copyright.

- (c) Offers submitted in response to this solicitation shall identify, to the extent known at the time an offer is submitted to the Government, the technical data or computer software that the Offeror, its subcontractors or suppliers, or potential subcontractors or suppliers, assert should be furnished to the Government with restrictions on use, release, or disclosure.
- (d) The Offeror's assertions, including the assertions of its subcontractors or suppliers or potential subcontractors or suppliers shall be submitted as an attachment to its offer in the following format, dated and signed by an official authorized to contractually obligate the Offeror: Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software.

The Offeror asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data or computer software should be restricted:

| Technical Data or<br>Computer Software<br>to be Furnished<br>With Restrictions* | Basis for<br>Assertion** | Asserted<br>Rights<br>Category*** | Name of Person<br>Asserting<br>Restrictions**** |
|---|--------------------------|-----------------------------------|---|
| (LIST)*****.  | (LIST)                   | (LIST)                            | (LIST)  |

\* For technical data (other than computer software documentation) pertaining to items, components, or processes developed at private expense, identify both the deliverable technical data and each such items, component, or process. For computer software or computer software documentation identify the software or documentation.

\*\* Generally, development at private expense, either exclusively or partially, is the only basis for asserting restrictions. For technical data, other than computer software documentation, development refers to development of the item, component, or process to which the data pertain. The Government's rights in computer software documentation generally may not be restricted. For computer software, development refers to the software. Indicate whether development was accomplished exclusively or partially at private expense. If development was not accomplished at private expense, or for computer software documentation, enter the specific basis for asserting restrictions.

\*\*\* Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited, restricted, or government purpose rights under this or a prior contract, or specially negotiated licenses).  
\*\*\*\* Corporation, individual, or other person, as appropriate.

\*\*\*\*\* Enter "none" when all data or software will be submitted without restrictions.

Date

---

Printed Name and Title

---



---

Signature

(End of identification and assertion)

- (e) An offeror's failure to submit, complete, or sign the notification and identification required by paragraph (d) of this provision with its offer may render the offer ineligible for award.
- (f) If the Offeror is awarded a contract, the assertions identified in paragraph (d) of this provision shall be listed in an attachment to that contract. Upon request by the Contracting Officer, the Offeror shall provide sufficient information to enable the Contracting Officer to evaluate any listed assertion.

**L-7 DFARS 252.227-7028 - TECHNICAL DATA OR COMPUTER SOFTWARE PREVIOUSLY DELIVERED TO THE GOVERNMENT (JUN 1995)**

The Offeror shall attach to its offer an identification of all documents or other media incorporating technical data or computer software it intends to deliver under this contract with other than unlimited rights that are identical or substantially similar to documents or other media that the Offeror has produced for, delivered to, or is obligated to deliver to the Government under any contract or subcontract. The attachment shall identify - -

- (a) The contract number under which the data or software were produced;
- (b) The contract number under which, and the name and address of the organization to whom, the data or software were most recently delivered or will be delivered; and
- (c) Any limitations on the Government's rights to use or disclose the data or software, including, when applicable, identification of the earliest date the limitations expire.

**L-8 GOVERNMENT-FURNISHED PROPERTY**

No material, labor, or facilities will be furnished by the Government unless provided for in the solicitation.

**L-9 INQUIRIES CONCERNING THE RFP**

Any questions concerning the RFP must be submitted in writing to the Contracting Officer at the location noted in blocks 7 and 9 of the Standard Form 33, "Solicitation, Offer and Award," no less than fifteen (15) days before closing. The Government will not consider questions received after this date. Offerors are cautioned against directing any questions concerning this RFP to technical personnel at the Naval Research Laboratory.

**L-10 INSTRUCTIONS FOR SUBMISSION AND INFORMATION REQUIRED TO EVALUATE PROPOSALS**

- (1) Information for the technical/management proposal shall be placed in Volume I and be completely separate from the business proposal (Volume II).
- (2) Proposal Identification/Mailing - The proposal should be packaged for delivery so as to permit safe and timely arrival at destination. The proposal package should be sent to the address shown in Block 7 of the RFP face page and marked:

**Solicitation No. N00173-00-R- DL07**

**Closing Date: (As specified in Block 9, RFP face page)**

**Attn: Code 3220, Dian Lockamy**

(3) Proposal Format and Length - No attempt is made to restrict the proposal format and style. However, the proposal should be written and organized so as to be compatible with the RFP, the Statement of Work, company's organization and accounting structure, and proposed cost estimate. Offerors are encouraged to use recycled paper and maximize the use of double sided copying when preparing responses to solicitations.

## **L-11 VOLUME I - TECHNICAL/MANAGEMENT PROPOSAL**

**REQUIRED COPIES: 1 ORIGINAL AND 3 COPIES .**

### **A. PERSONNEL QUALIFICATIONS**

Identify the key and supporting personnel to be assigned to this program and describe their previous research and accomplishments on similar or closely related projects. Indicate availability of key personnel for the contract period. Document that the personnel proposed have the required security clearances, pertinent experience, educational background, and past accomplishments as set forth in Attachment (3), Personnel Qualifications.

### **B. TECHNICAL APPROACH**

Demonstrate a complete understanding of the technical requirements of the statement of work and a sound approach by a feasible and workable program for each task response. Identify the intent to satisfy the "deliverables" reporting requirements in the statement of work.

### **C. MANAGEMENT PLAN**

Demonstrate the capability to oversee and schedule required task demands. Identify the overall soundness of the effective management control; simplicity and low cost. Demonstrate corporate project experience in performing related projects.

## **L-12 VOLUME II - BUSINESS PROPOSAL**

**REQUIRED COPIES: 1 ORIGINAL AND 3 COPIES**

### **(1) COST PROPOSAL**

The offeror shall submit a business proposal that includes a cost proposal with supporting information for each cost element consistent with offeror's cost accounting system. The supporting breakdown should include such elements as materials, direct labor, indirect cost, and other costs such as travel. The offeror shall provide exhibits as necessary to substantiate each cost element.

Should rates be used in the proposal which are not DCAA approved, the offeror shall provide complete documentation and the rationale for their use at time of proposal submission. However, offerors are advised to use actual labor rates of proposed personnel as the basis for estimating labor costs when practicable.

### **L-13 TRAVEL AND MATERIAL ESTIMATES AND OTHER DIRECT COSTS (FOR EVALUATION PURPOSES ONLY)**

The travel and material estimates and other direct costs set forth must be included in each offeror's cost proposal for evaluation purposes only. During the term of this contract, the contractor will be reimbursed actual and allowable travel, material, and other direct expenses.

The Government estimates the travel costs for this effort to be \$70,000.00 for the basic award and \$70,000.00 per each option period, if exercised.

The Government estimates the material costs for this effort to be \$75,000.00 for the basic award and \$75,000.00 per each option period, if exercised.

These estimates are direct costs, and the offeror should add any applicable indirect costs.

## **SECTION M EVALUATION FACTORS FOR AWARD**

### **M-1 EVALUATION**

Award will be made to that offeror whose proposal is determined to be the best value to the Government, proposed cost and other factors considered. The Government reserves the right to make award to other than the low offeror. Although technical considerations are more important than the cost factor, the closer the technical scores of the various proposals are to one another, the more important the business considerations become.

### **M-2 EVALUATION FACTORS FOR AWARD**

Proposals will be evaluated in accordance with the following criteria. The technical factor is more important than the cost factor. Technical subfactors are listed in descending order of importance.

#### **M-2-1. TECHNICAL/MANAGEMENT**

##### **(1) PERSONNEL QUALIFICATIONS**

The proposed personnel will be evaluated on their experience and qualifications relevant to the proposed task.; including the degree to which they meet the requirements set forth in the Personnel Qualifications.

## (2) TECHNICAL APPROACH

Evaluation will be based on the degree to which the offeror demonstrates a complete understanding of the technical requirements of the statement of work and the offeror's intent to satisfy the deliverables required in the statement of work.

## (3) MANAGEMENT PLAN

Management Plan will be evaluated on offeror's capability to oversee and schedule required task demands; the overall soundness of effective management control and simplicity; the corporate project experience in performing related projects.

### **M-2-2 COST TO THE GOVERNMENT**

Proposed estimated cost to the Government. The Government may adjust the proposed cost for purposes of evaluation based upon an evaluation of cost realism. Cost Realism means that the costs in an offeror's proposal are realistic for the work to be performed; reflect a clear understanding of the requirements; and are consistent with the various elements of the offeror's technical proposal. The cost realism evaluation includes an analysis of the adequacy of the hours, labor mix, and other direct costs to perform the work as proposed in the technical proposal as well as the proposed labor and indirect rates. It also includes evaluation of the likelihood that the risks inherent in the offeror's technical approach will result in higher actual costs than anticipated.

### **M-3 FAR 52.217-5 - EVALUATION OF OPTIONS (JUL 1990)**

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

## STATEMENT OF WORK ESM Engineering and Technical Support Services

### 1.0 INTRODUCTION

This Statement of Work describes the engineering and technical support services to be provided to the Tactical Electronic Warfare Division (TEWD) of the Naval Research Laboratory (NRL), Washington, D.C.

### 2.0 BACKGROUND

The Naval Research Lab (NRL) has developed advanced EW simulation capabilities to support NRL research and development (R&D), as well as US Navy training activities. Simulation work at NRL focuses on the ability to generate Electronic Warfare (EW) pulse level environments through specialized hardware and software tools within a user scripted scenario. The simulation outputs serve to stimulate state-of-the art EW receivers and signal processors for thorough test and evaluation. Simulator outputs are either actual RF signals, or digital or software descriptions of the pulse descriptor words (PDW). The TEWD supports multiple Electronic Support Measures Environment Simulator (ESMES) systems. The earliest version of an ESMES was the Tactical Electronic Warfare Environment Simulator (TEWES) system. This system pushed the technology to where an environment simulator could simulate up to 1000 radar signals simultaneously into an ESM receiver being tested. NRL developed the Portable TEWES (PTEWES) as a mobile RF simulator capable of running scenarios. NRL also has the capability to use software only scenarios to generate pulse descriptor words to drive ESM receiver simulations. Continued research at NRL is expected to focus on the continuing improvement of hardware and software simulation capabilities to simulate the current state of the art deployed radar systems for research into ESM exploitation techniques.

The Naval Research Lab conducts research into advanced ESM collection and processing techniques – typically including ESM system design and prototype development. Work spans the spectrum of ESM system design and development including RF, digital and analog signal processing, and software.

### 3.0 SCOPE

These support services include a number of interrelated tasks that vary in both their technical dimensions and deliverable product. A high degree of inter-task coordination is a requirement of this specification. These tasks include systems engineering (hardware and software), systems analysis (hardware and software), system development and analysis. The uniqueness of data availability, availability of necessary processing equipment, and security requirements dictates that a portion of the tasks will be performed at NRL.

The contractor shall provide engineering and technical support for all the NRL developed ESMES systems and software by providing systems analysis and systems engineering of hardware concepts and software programs, designing, developing, and testing hardware and software programs in scenario construction problems in the task areas outlined below.

The contractor shall provide engineering and technical support for NRL prototype ESM system design, development, test, and evaluation as covered under the task items.

### 3.1 TASKS:

3.1.1 TASK I ESMES and ESM system and subsystem analysis and design.

3.1.2 TASK II Software development and support

3.1.3 TASK III Custom hardware design, development, and repair.

3.1.4 TASK IV System Engineering

3.1.5 TASK V Engineering Assistant

3.2 All work, travel and material purchases associated with these tasks are subject to prior written Contracting Officer Representative (COR) approval. Work under the tasks shall be proposed in writing for COR approval showing estimated time to complete as well as estimated labor and material costs. Prior to any travel, contractor shall submit a travel plan showing itinerary, estimated travel and estimated material purchase costs.

3.3 All work performed under the tasks shall be fully documented. A required deliverable for the tasks shall be a detailed document describing the work performed. Documents are to include, but not limited to, hardware and software design, and performance analysis reports. Additional deliverables will be technical reports, trip reports, monthly progress reports and monthly fiscal reports.

### 4.0 DEFINITIONS:

Electronic Warfare: Any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy. The three major subdivisions within electronic warfare are electronic attack, electronic protection and electronic warfare support.

Electronic Warfare Support: That division of electronic warfare involving actions tasked by, or under direct control of, an operational commander to



search for, intercept, identify and locate sources of intentional and unintentional radiated electromagnetic energy for the purpose of immediate threat recognition. Thus, electronic warfare support provides information required for immediate decisions involving electronic warfare operations, threat avoidance, targeting and other tactical actions. Also called ES.

Electronic Warfare Support Measures: That division of electronic warfare involving actions taken under direct control of an operational commander to search for, intercept, identify and locate sources of radiated electromagnetic energy for the purpose of immediate threat recognition. Thus, electronic warfare support measures provide a source of information required for immediate decisions involving ECM, ECCM, avoidance, targeting and other tactical employment of forces. Also called ESM.

ESMES: Electronic Support Measures Environment Simulator. A system used to provide a simulated radar signal environment for ESM receiver testing. The TEWES system is one type of ESMES system. The ESMES must emit detailed radar pulses that emulate the actual radar systems. This simulation must be very detailed and include (but not limited to) the following information in creating the pulses: antenna patterns, scan patterns, frequency agility, pulse repetition frequency, pulse width, signal power, and the agility that may accompany any of those parameters.

ESM Receiver: A receiver used to scan the microwave electromagnetic spectrum looking for activity. When a signal is detected, it could be from a radar or from a communication data link. The ESM receivers discussed in this SOW are being tested for radar signal detection only. An ESM receiver is composed of (1) an RF front end that converts the RF pulses in the environment into an intermediate pulse format ( IF, analog, or digital), (2) a preprocessor that converts the intermediate pulse format environment into a digital pulse format, and (3) the processor that converts the digital pulse format of the environment into a signal level description of the environment.

TEWES: Tactical Electronic Warfare Environment Simulator. A system developed by NRL that is used to provide a simulated radar signal environment that is composed of many simultaneous radar signals. This resulting environment is then fed into an ESM receiver either as a RF signal as it would be seen in a real environment, or as it is seen after being detected by the ESM receiver RF front end (in a analog or digital form). A typical TEWES system is composed of (1) a Pentium-based computer that uses special software and a scenario data file to generate a radar signal level simulation of the environment, (2) a Digital Generator Subsystem that converts a radar signal level simulation into a digital radar pulse level simulation, and (3) a RF Generation Subsystem that converts a

digital radar pulse level simulation into a radio frequency (RF) simulation of the environment.

**PTEWES:** Portable Tactical Electronic Warfare Environment Simulator. A portable system developed by NRL that is used to provide a simulated radar signal environment that is composed of many simultaneous radar signals. This resulting environment is then fed into an ESM receiver either as a RF signal as it would be seen in a real environment, or as it is seen after being detected by the ESM receiver RF front end (in a analog or digital form). A PTEWES system is composed of (1) a Pentium-based laptop computer that uses special software and a scenario data file to generate a radar signal level simulation of the environment, (2) a chassis that converts a radar signal level simulation into a digital radar pulse level simulation, then converts the digital radar pulse level simulation into a radio frequency (RF) simulation of the environment.

**RF:** Radio Frequency. In this context, RF is loosely defined as electromagnetic energy having a frequency anywhere from 400 Mhz up through 110 GHz.

**Scenario:** A description of the movements and emissions of radiating and moving platforms over a defined period of time. A scenario is typically defined for a specific geographical location. For purposes of this SOW, the ESMES must work at the pulse level using the information from a scenario. Typically a data file is used by the ESMES system that describes the time, location, and movement of radar and ESM platforms within a geographical lay-down.

## 5.0 WORK REQUIREMENTS

### 5.1 TECHNICAL REQUIREMENTS

#### 5.1.1 TASK I ESMES and ESM system and subsystem analysis and design

The contractor shall support system and subsystem design, analysis, and development activities for NRL ESMES and NRL ESM R&D projects.

For ESMES related work, the contractor shall be active in all aspects of EW simulator design and prototype development. The contractor shall provide analysis of current and projected Threat Emitter signal environments. The contractor shall work with NRL engineers to develop system technical requirements associated with new or modified ESMES systems and generate a specification summarizing these results. The contractor shall be required to design and develop both hardware (RF, digital) and software simulation capabilities to meet NRL simulation needs (details of the hardware and software tasking are included in sections 5.1.2, 5.1.3). The contractor may be required to manage the contractor personnel for the tasks set forth in 5.1.2, 5.1.3, and 5.1.5

during design, development, and testing of the new or modified ESMES subsystems at the direction of the COR.

The contractor shall provide hardware and software support for NRL legacy simulation capabilities, including the ATEWES and PTEWES systems. The contractor shall be responsible for evaluating system simulations capabilities, recommend and design system improvements to meet evolving NRL and Navy simulation needs. The contractor shall support training of NRL and Navy personnel on the system software.

The contractor shall provide engineering support to NRL ESM R&D projects and prototype system development. The contractor shall be responsible for evaluating project requirements and proposing analytical, software and hardware system designs to satisfy project requirements. The contractor may be required to manage contractor personnel for tasks that execute the design concepts produced under this task at the direction of the COR (see sections 5.1.2, 5.1.3, 5.1.5). Top-level software and hardware designs, as well as the hardware platforms, operating systems and programming languages to be used will be selected or approved by the NRL COR.

Estimated level of effort per year for this task will be one (1) man-year principal engineer.

### **5.1.2 SOFTWARE DEVELOPEMENT AND SUPPORT**

The contractor shall support software design and development for NRL ESMES and NRL ESM R&D activities. ESMES software work involves maintaining and enhancing the system software for existing NRL ESMES assets, as well as creating future ESMES R&D prototype systems. ESM system software work involves software development for NRL R&D prototype ESM systems. Task 5.1.1 personnel may participate in the top-level software system design. Top-level software designs, as well as the hardware platforms, operating systems and programming languages to be used will be selected or approved by the NRL COR.

Source code developed under this contract will be the property of the Naval Research Laboratory. Use of contractor owned software will require prior approval by the NRL COR; any such software will be made available to NRL in source code form for its nonexclusive use. Appropriate use of third party software libraries, purchased by NRL, will be approved by the NRL COR.

The contractor shall support software system design and development for the ATEWES, PTEWES, and software PDW generator ESMES systems. The present ESMES software is written in C/C++. The contractor shall provide software support to NRL developed simulation software, including the system software that runs the ATEWES, and PTEWES systems. Software support

includes debugging and system enhancements. The contractor shall support training of NRL personnel on the system software. The contractor shall be responsible for evaluating system simulations capabilities, recommending and designing system improvements to meet evolving NRL simulation needs.

The contractor shall provide software support to NRL R&D efforts requiring programming in the C and C++ programming languages. NRL R&D work often requires the development of prototype ESM systems, which include software for control, signal processing, and display. The task requires some familiarity with the field of radar pulse processing. Familiarity with the VxWorks operating system is desirable. Support personnel will be expected to gain a thorough understanding of existing and developmental pulse processing systems and use that knowledge to create and maintain software.

The contractor shall be responsible for following Software Engineering procedures as established by NRL personnel, including Version Control, Unit Testing, System Testing, and software source code documentation.

This task may require that some time be spent on-site at NRL. This requirement will vary with the specific work task. For example during times of system integration and test, this task will be performed on-site. Source code will not be transported or transmitted out of NRL building 210 without the prior approval of the COR. On site location will be determined by the COR.

Estimated level of effort per year for this task is two (2) man-years.

### **5.1.3 CUSTOM HARDWARE DESIGN, DEVELOPMENT, AND REPAIR.**

The contractor shall support the ESM Branch in the design, development, and repair of custom electronic hardware. This hardware includes existing NRL ESMES developed systems, as well as R&D prototype system development for both ESMES and ESM systems.

The contractor shall provide hardware design and debug services in support of radar pulse processing work currently underway in the ESM Branch. Based on a given set of requirements, the contractor shall design, build, and integrate the digital, analog, and RF hardware and software required to fulfill the requirements. This may involve the following engineering tasks: system architecture design; hardware and software development; overseeing PC board design, layout, fabrication, testing; system level integration and testing. Detailed digital designs will encompass the field of signal processing. They will likely commence at the output of an A/D converter, then process through logic circuitry and likely encompass the areas of FPGA and DSP programming. Analog circuitry will typically involve signal conditioning, filtering, amplification, and A/D conversion. RF circuitry involves signal reception, amplification, filtering, and frequency conversion (mixing – typically downconversion to a baseband

frequency). The task will require the use of the C (or C++) programming language to support the hardware being built and tested. The contractor will be expected to gain a thorough understanding of existing and developmental ESM receiver and pulse processing systems and use that knowledge to create and maintain hardware.

For existing NRL ESMES systems, the contractor shall be expected to maintain digital, analog, and RF generation circuitry. Digital circuitry includes TTL-compatible devices, programmable logic devices, digital signal processors, and microprocessors. In addition, some designs use SCSI, ethernet, and microcontroller VLSI components. Since these VLSI components are software controlled, microprocessor based designs are required. The analog circuitry will be mostly composed of high-speed operational amplifiers and digital-to-analog converters. The RF components being used are digitally controlled RF switches, attenuators, and vector modulators.

This task may require that some time be spent on-site at NRL. This requirement will vary with the specific work task. For example during times of system integration and test, this task will be performed on-site. On site location will be at the determined by the COR.

Estimated level of effort per year for this task is one (1) man-year.

#### **5.1.4 SYSTEM ENGINEERING**

NRL has been tasked with managing multiple EW procurements as the representative for the US government. NRL has the responsibility for technical and management duties in executing these programs.

The contractor shall provide the NRL ESM branch with technical system engineering and program management duties. This task requires heavy interactions with both government and contractor representatives.

The contractor shall generate, review, and evaluate program documents, including technical and business plans, schedules, statements of work, proposals and contracts. Document evaluations will include reporting findings to the NRL project lead. The contractor shall participate in management and design reviews. The contractor shall participate in EW system Acceptance Testing. Travel to foreign countries is expected.

Due to the level of interaction with the NRL program lead, work performed for this task will require the contractor to work on-site at NRL.

Estimated level of effort per year for this task is one (1) man-year system engineer.

### **5.1.5 ENGINEERING ASSISTANT**

The contractor shall assist the engineers in the tasks above with low-level engineering tasks in support of their efforts on the contract. The engineering support shall consist of: ordering parts and maintaining inventories using spreadsheets and databases; inspect, test, incoming parts; build mechanical assemblies and special electrical cables; operate PROM/ PLD programmers to program and check parts; populate circuit boards; test assemblies; design mechanical fixtures using CAD software; serve as a point of contact to mechanical subcontractors; install and configure system software on embedded ESMES system or computers; aid in development of technical documentation such as specifications and system documentation. There shall be continual interactions with the contractor's engineering staff.

This task will mainly be performed at the contractor's facility. This requirement will vary with the specific work task.

Estimated level of effort per year for this task is six (6) man months.

### **5.2 REPORTS, DATA AND OTHER DELIVERABLES**

Deliverables will be included in the Contract Data Requirements List (CDRL) DD Form 1423. The general requirements for these items are listed in the following subsections.

#### **5.2.1 MONTHLY PROGRESS REPORTS**

The contractor shall prepare a monthly progress report for each task. The monthly progress report shall be due within ten (10) working days from the completion of the reporting period.

#### **5.2.2 TRIP REPORTS**

The contractor shall prepare trip reports for any contractor travel conducted in association with this contract. Trip reports are to be delivered independently of any other reporting requirements listed in this document and may be classified. Trip reports shall be due within ten (10) working days from the completion of a trip.

#### **5.2.3 MONTHLY FISCAL STATUS REPORTS**

The contractor shall prepare an independent monthly fiscal status report for each contract task. The monthly fiscal status report shall be due within ten (10) working days from the completion of the reporting period.

#### 5.2.4 MONTHLY ON-SITE CONTRACTOR REPORT

The contractor shall prepare a monthly on-site report. The monthly on-site report shall be due within ten (10) working days from the completion of the reporting period.

#### 5.2.5 INTERIM TECHNICAL REPORTS

The contractor shall prepare interim technical reports at three (3) month intervals while working on any major sub-task. These reports shall include a detailed discussion of the technical findings and accomplishments through the tasking.

#### 5.2.6 FINAL TECHNICAL REPORTS

The contractor shall prepare technical reports within thirty (30) working days after the completion of any major sub-task. These reports shall include a detailed discussion of the technical findings and accomplishments through the tasking. The reports shall be of publication quality, and shall include subject reference matter.

#### 5.2.7 HARDWARE DESIGN DOCUMENTATION

The contractor shall deliver a hardware design document at the conclusion of any new hardware development or existing hardware modifications conducted under any of the contract tasks. The hardware design document will be delivered concurrent with the hardware delivery. This requirement applies to all new or modified hardware delivered under this contract.

#### 5.2.8 SOFTWARE DESIGN DOCUMENTATION

The contractor shall deliver a software design document at the conclusion of any new software development or existing software modifications conducted under any of the contract tasks. The software design document shall be delivered concurrent with the product delivery. This requirement applies to all new or modified software delivered under this contract.

**(1 Data Item)**

**Form Approved**

**OMB No. 0704-0188**

Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

**18. ESTIMATED  
TOTAL PRICE**



**Form Approved**  
**OMB No. 0704-0188**

Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

|                           |  |
|---------------------------|--|
| 17. PRICE GROUP           |  |
| 18. ESTIMATED TOTAL PRICE |  |

**Form Approved**  
**OMB No. 0704-0188**

**Form Approved**  
**OMB No. 0704-0188**

|   |  |  |  |   |         |   |  |
|---|--|--|--|---|---------|---|--|
| A. CONTRACT LINE ITEM NO.<br>0002/0004/0006/0008/0010   |  | B. EXHIBIT<br>A                          | C. CATEGORY:<br>TDP _____ TM _____ OTHER _____ |   |         |   |  |
| D. SYSTEM / ITEM  |  | E. CONTRACT / PR NO.<br>N00173-01-R-DL07 |  | F. CONTRACTOR   |         |   |  |
| 1. DATA ITEM NO.<br><br>A004  | 2. TITLE OF DATA ITEM<br>Contractor On-Site Labor Report |  |  | 3. SUBTITLE   |         |   |  |
| 4. AUTHORITY (Data Acquisition Document No.)<br><br>N/A   |  | 5. CONTRACT REFERENCE                    |  | 6. REQUIRING OFFICE<br><br>NRL CODE   |         |   |  |
| 7. DD 250 REQ<br>LT   | 9. DIST STATEMENT REQUIRED<br><br>N/A                    | 10. FREQUENCY<br>MNTLY                   | 12. DATE OF FIRST SUBMISSION<br>40 DAC         | 14. DISTRIBUTION<br><br>a. ADDRESSEE      b. COPIES<br>Draft      Final<br>Reg      Repro |         |   |  |
| 8. APP CODE<br>N/A  |  | 11. AS OF DATE                           | 13. DATE OF SUBSEQUENT SUBMISSION              |   |         |   |  |
| 16. REMARKS<br>The Contractor shall deliver the On-Site Labor Report for each task no later than five (5) days after the end of each reporting month. The report must include but not be limited to:<br><br>Reporting Period:<br>Contract Number (and Order Number, if applicable):<br>Contract Value:<br>Current Funding:<br>Amount Expended in Current Period:<br>Total Expended to Date:<br>Date Submitted:<br><br>Labor (including subcontractors) - Show employee name, number of hours, and total amount billed for contractor employees working on-site at NRL. If the contractor employees worked on multiple tasks (as defined by the COR), the numbers of hours worked on each task must be shown separately. |  |  |  | NRL Code 5723   |         | 1 |  |
|   |  |  |  | AO Code 5720  |         | 1 |  |
|   |  |  |  | NRL Code  |         | 1 |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
|   |  |  |  |   |         |   |  |
| G. PREPARED BY<br><br>5723  |  | H. DATE<br><br>7/17/01                   | I. APPROVED BY                                 |   | J. DATE |   |  |

|                              |  |
|------------------------------|--|
| 18. ESTIMATED<br>TOTAL PRICE |  |
|------------------------------|--|



|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|---|--|--|-----------------|--|--|---|--|---------------------------------------|--|------------------------------------|-------|-------|
| <b>CONTRACT DATA REQUIREMENTS LIST</b><br>(1 Data Item)   |  |  |                 |  |  |   |  |                                       |  | Form Approved<br>OMB No. 0704-0188 |       |       |
| <small>Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</small> |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
| A. CONTRACT LINE ITEM NO.<br>0002/0004/0006/0008/0010   |  |  | B. EXHIBIT<br>A |  | C. CATEGORY:<br>TDP _____ TM - _____ OTHER _____ |   |  |                                       |  |                                    |       |       |
| D. SYSTEM / ITEM  |  |  |                 | E. CONTRACT / PR NO.<br>N00173-01-R-DL07 |  |   |  | F. CONTRACTOR                         |  |                                    |       |       |
| 1. DATA ITEM NO.<br>A006  |  | 2. TITLE OF DATA ITEM<br>Final Technical Reports |                 |  |  |   |  | 3. SUBTITLE                           |  |                                    |       |       |
| 4. AUTHORITY (Data Acquisition Document No.)  |  |  |                 | 5. CONTRACT REFERENCE<br>SOW             |  |   |  | 6. REQUIRING OFFICE<br>NRL, Code 5723 |  |                                    |       |       |
| 7. DD 250 REQ<br>LT   |  | 9. DIST STATEMENT<br>REQUIRED                    |                 | 10. FREQUENCY<br>N/A                     |  | 12. DATE OF FIRST SUBMISSION<br>EOC         |  | 14. DISTRIBUTION                      |  |                                    |       |       |
| 8. APP CODE   |  |  |                 | 11. AS OF DATE                           |  | 13. DATE OF SUBSEQUENT<br>SUBMISSION<br>N/A |  | a. ADDRESSEE                          |  | b. COPIES                          |       |       |
|   |  |  |                 |  |  |   |  |                                       |  | Draft                              | Final |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    | Reg   | Repro |
| 16. REMARKS<br>The contractor shall prepare a final technical report for each task that must include but not be limited to:<br><br>(a) Discussion of sub-task or task objectives.<br><br>(b) Discussion of technical requirements.<br><br>(c) Technical results.<br><br>(d) Conclusions and recommendations for further research.<br><br>(e) Description of significant hardware and/or software developments as appropriate.<br><br>Block 12 (cont'd): subtask   |  |  |                 |  |  |   |  | NRL Code 5723                         |  |                                    | 1     |       |
|   |  |  |                 |  |  |   |  | NRL Code 5720                         |  |                                    | 1     |       |
|   |  |  |                 |  |  |   |  | DTIC                                  |  |                                    | 1     |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
| 15. TOTAL   |  |  |                 |  |  |   |  |                                       |  | 3                                  |       |       |
| G. PREPARED BY<br>5723  |  |  |                 | H. DATE<br>7/17/01                       |  | I. APPROVED BY                              |  |                                       |  | J. DATE                            |       |       |

|                              |
|------------------------------|
| 17. PRICE GROUP              |
| 18. ESTIMATED<br>TOTAL PRICE |

|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|---|--|--|-----------------|--|--|---|--|---------------------------------------|--|------------------------------------|-------|-------|
| <b>CONTRACT DATA REQUIREMENTS LIST</b><br>(1 Data Item)   |  |  |                 |  |  |   |  |                                       |  | Form Approved<br>OMB No. 0704-0188 |       |       |
| Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.  |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
| A. CONTRACT LINE ITEM NO.<br>0002/0004/0006/0008/0010   |  |  | B. EXHIBIT<br>A |  | C. CATEGORY:<br>TDP _____ TM - _____ OTHER _____ |   |  |                                       |  |                                    |       |       |
| D. SYSTEM / ITEM  |  |  |                 | E. CONTRACT / PR NO.<br>N00173-01-R-DL07 |  |   |  | F. CONTRACTOR                         |  |                                    |       |       |
| 1. DATA ITEM NO.<br>A007  |  | 2. TITLE OF DATA ITEM<br>Hardware Design Documentation |                 |  |  |   |  | 3. SUBTITLE                           |  |                                    |       |       |
| 4. AUTHORITY (Data Acquisition Document No.)  |  |  |                 | 5. CONTRACT REFERENCE<br>SOW             |  |   |  | 6. REQUIRING OFFICE<br>NRL, Code 5723 |  |                                    |       |       |
| 7. DD 250 REQ   |  | 9. DIST STATEMENT<br>REQUIRED                          |                 | 10. FREQUENCY<br>ASREQ                   |  | 12. DATE OF FIRST SUBMISSION<br>*           |  | 14. DISTRIBUTION                      |  |                                    |       |       |
| 8. APP CODE   |  |  |                 | 11. AS OF DATE                           |  | 13. DATE OF SUBSEQUENT<br>SUBMISSION<br>N/A |  | a. ADDRESSEE                          |  | b. COPIES                          |       |       |
|   |  |  |                 |  |  |   |  |                                       |  | Draft                              | Final |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    | Reg   | Repro |
| 16. REMARKS<br>*The contractor shall deliver a hardware design document at the conclusion of any new hardware development or existing hardware modifications conducted under any of the contract tasks. This requirement applies to all new or modified hardware delivered under this contract. The contractor shall document all hardware designs and/or modifications under this contract as follows:<br><br>(a) Functional description and theory of operation.<br>(b) Detailed schematic diagrams, wiring diagrams, printed circuit board layouts, mechanical drawings and parts lists.<br>(c) All applicable computer generated computer aided design (CAD) and computer aided manufacture (CAM) files.<br>(d) Contents of programmable devices such as programmable read only memories (PROMS), programmable logic devices (PLDS), etc.<br>(e) Computer and operator interface definitions and specifications.<br>(f) Line power requirements including but not limited to permitted line frequency range, and operating and surge voltage and current requirements.<br>(g) Environmental requirements including but not limited to vibration and shock, heating and cooling, and humidity requirements.<br>(h) Detailed operating instructions were applicable. Instructions will be sufficiently detailed so that a qualified individual will be able to operate the component, sub-system or system with minimal assistance.<br>(i) Maintenance and test instructions including troubleshooting guides where appropriate.<br>(j) Any addition technical data that would be required to successfully replicate a functional component, subassembly, sub-system or system.<br>(k) Where modifications to existing designs are required, the documentation format shall be consistent with existing documentation and implemented as replacements or additions to existing documentation, where feasible. |  |  |                 |  |  |   |  | NRL Code 5723                         |  |                                    | 2     |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
|   |  |  |                 |  |  |   |  |                                       |  |                                    |       |       |
| 15. TOTAL   |  |  |                 |  |  |   |  |                                       |  | 2                                  |       |       |
| G. PREPARED BY<br>5723  |  |  |                 | H. DATE<br>7/17/01                       |  | I. APPROVED BY                              |  |                                       |  | J. DATE                            |       |       |

|                              |
|------------------------------|
| 17. PRICE GROUP              |
| 18. ESTIMATED<br>TOTAL PRICE |

# CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved  
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

|   |   |   |   |   |                           |  |
|---|---|---|---|---|---------------------------|--|
| <b>A. CONTRACT LINE ITEM NO.</b><br>0002/0004/0006/0008/0010  |   | <b>B. EXHIBIT</b><br>A                          |   | <b>C. CATEGORY:</b><br>TDP _____ TM - _____ OTHER _____ |                           |  |
| <b>D. SYSTEM / ITEM</b>   |   | <b>E. CONTRACT / PR NO.</b><br>N00173-01-R-DL07 |   | <b>F. CONTRACTOR</b>                                    |                           |  |
| <b>1. DATA ITEM NO.</b><br>A008   | <b>2. TITLE OF DATA ITEM</b><br>Software Design Documentation |   |   | <b>3. SUBTITLE</b>                                      |                           |  |
| <b>4. AUTHORITY</b> (Data Acquisition Document No.)   |   | <b>5. CONTRACT REFERENCE</b><br>SOW             |   | <b>6. REQUIRING OFFICE</b><br>NRL, Code 5723            |                           |  |
| <b>7. DD 250 REQ</b>  | <b>9. DIST STATEMENT REQUIRED</b>                             | <b>10. FREQUENCY</b><br>ASREQ                   | <b>12. DATE OF FIRST SUBMISSION</b><br>*        | <b>14. DISTRIBUTION</b>                                 |                           |  |
| <b>8. APP CODE</b>  |   | <b>11. AS OF DATE</b>                           | <b>13. DATE OF SUBSEQUENT SUBMISSION</b><br>N/A | <b>a. ADDRESSEE</b>                                     | <b>b. COPIES</b>          |  |
|   |   |   |   |   | <b>Draft</b> <b>Final</b> |  |
|   |   |   |   |   | <b>Reg</b> <b>Repro</b>   |  |
| <b>16. REMARKS</b><br>*The contractor shall deliver a software design document at the conclusion of any new software development or existing software modifications conducted under any of the contract tasks. This requirement applies to all new or modified software delivered under this contract. The contractor shall document all software developed and/or modified with text that includes the following as a minimum:<br><br>(a) Name and purpose of the software program.<br><br>(b) Name and purpose of the software with which the designated software will be used. Definition of hardware and software interfaces, as required.<br><br>(c) File names and other information describing the identification and location of the software.<br><br>(d) Detailed operator (user) instructions. The documentation of operator instructions will be comprehensive.<br><br>(e) On-line HELP will be utilized to the highest degree possible where applicable. Software that directly interfaces to the human system operator will support HELP functions to assist the operator in normal system operations.<br><br>(f) All software will be documented within the source code to the degree necessary to permit a qualified computer programmer to understand and continue the development of the software. This type of documentation is referred to as "in-line" documentation. In-line documentation will be required to the degree that software functionality is not impaired.<br><br>Sufficient information will be provided to allow an uninitiated person to understand the use of the software. Software documentation resulting from designs applied to specific ESM receiver/processor systems will be delivered in a format and on a medium appropriate and considered standard for that system. Industry standard software compilers will be used to the greatest degree possible. |   |   |   | NRL Code 5723   | 2                         |  |
|   |   |   |   |   |                           |  |
|   |   |   |   |   |                           |  |
|   |   |   |   |   |                           |  |
|   |   |   |   |   |                           |  |
|   |   |   |   |   |                           |  |
|   |   |   |   |   |                           |  |
|   |   |   |   |   |                           |  |
|   |   |   |   |   |                           |  |
|   |   |   |   |   |                           |  |
|   |   |   |   |   |                           |  |
|   |   |   |   |   |                           |  |
|   |   |   |   |   |                           |  |
|   |   |   |   |   |                           |  |
|   |   |   |   | <b>15. TOTAL</b> →                                      |                           |  |
| <b>G. PREPARED BY</b><br>5723   |   | <b>H. DATE</b><br>7/17/01                       |   | <b>I. APPROVED BY</b>                                   |                           |  |
|   |   |   |   | <b>J. DATE</b>  |                           |  |

|                                  |
|----------------------------------|
| <b>17. PRICE GROUP</b>           |
| <b>18. ESTIMATED TOTAL PRICE</b> |

|   |     |                                     |  |  |                                     |
|---|-----|-------------------------------------|--|--|-------------------------------------|
| <b>DEPARTMENT OF DEFENSE<br/>CONTRACT SECURITY CLASSIFICATION SPECIFICATION</b><br><i>(The requirements of the DoD Industrial Security Manual apply to all security aspects of this effort.)</i>  |     |                                     |  | <b>1. CLEARANCE AND SAFEGUARDING SER: 029-01</b><br>a. FACILITY CLEARANCE REQUIRED<br><div style="text-align: center; border: 1px solid black; padding: 2px;"><b>SECRET</b></div> b. LEVEL OF SAFEGUARDING REQUIRED<br><div style="text-align: center; border: 1px solid black; padding: 2px;"><b>SECRET</b></div> |                                     |
| <b>2. THIS SPECIFICATION IS FOR: (X and complete as applicable)</b>   |     |                                     |  | <b>3. THIS SPECIFICATION IS: (X and complete as applicable)</b>  |                                     |
| a. PRIME CONTRACT NUMBER  |     | <input checked="" type="checkbox"/> |  | a. ORIGINAL (Complete date in all cases) DATE (YYYYMMDD)<br>20010613   |                                     |
| b. SUBCONTRACT NUMBER   |     |                                     |  | b. REVISED (Supersedes all previous specs) REVISION NO. DATE (YYYYMMDD)  |                                     |
| <input checked="" type="checkbox"/> c. SOLICITATION OR OTHER NUMBER<br>57-2211-01   |     | DUE DATE (YYYYMMDD)                 |  | c. FINAL (Complete item 5 in all cases) DATE (YYYYMMDD)  |                                     |
| <b>4. IS THIS A FOLLOW-ON CONTRACT?</b> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO. If Yes, complete the following:<br>Classified material received or generated under _____ (Preceding Contract Number) is transferred to this follow-on contract.    |     |                                     |  |  |                                     |
| <b>5. IS THIS A FINAL DD FORM 254?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO. If Yes, complete the following:<br>In response to the contractor's request dated _____, retention of the classified material is authorized for the period of _____. |     |                                     |  |  |                                     |
| <b>6. CONTRACTOR (Include Commercial and Government Entity (CAGE) Code)</b>   |     |                                     |  |  |                                     |
| a. NAME, ADDRESS, AND ZIP CODE  |     | b. CAGE CODE                        |  | c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)   |                                     |
| FOR RFP PURPOSES ONLY, NOT VALID FOR ACTUAL CONTRACT AWARD.   |     |                                     |  | N/A  |                                     |
| <b>7. SUBCONTRACTOR</b>   |     |                                     |  |  |                                     |
| a. NAME, ADDRESS, AND ZIP CODE  |     | b. CAGE CODE                        |  | c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)   |                                     |
| N/A   |     |                                     |  | N/A  |                                     |
| <b>8. ACTUAL PERFORMANCE</b>  |     |                                     |  |  |                                     |
| a. LOCATION   |     | b. CAGE CODE                        |  | c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)   |                                     |
| N/A   |     |                                     |  | N/A  |                                     |
| <b>9. GENERAL IDENTIFICATION OF THIS PROCUREMENT</b>  |     |                                     |  |  |                                     |
| ESM ENGINEERING AND SUPPORT SERVICES.   |     |                                     |  |  |                                     |
| <b>10. CONTRACTOR WILL REQUIRE ACCESS TO:</b>   |     |                                     |  |  |                                     |
|   | YES | NO                                  | <b>11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:</b>   |  |                                     |
| a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION   |     | <input checked="" type="checkbox"/> | a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY                    |  | <input checked="" type="checkbox"/> |
| b. RESTRICTED DATA  |     | <input checked="" type="checkbox"/> | b. RECEIVE CLASSIFIED DOCUMENTS ONLY   |  | <input checked="" type="checkbox"/> |
| c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION   |     | <input checked="" type="checkbox"/> | c. RECEIVE AND GENERATE CLASSIFIED MATERIAL  | <input checked="" type="checkbox"/>  |                                     |
| d. FORMERLY RESTRICTED DATA   |     | <input checked="" type="checkbox"/> | d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE   |  | <input checked="" type="checkbox"/> |
| e. INTELLIGENCE INFORMATION   |     | <input checked="" type="checkbox"/> | e. PERFORM SERVICES ONLY   |  | <input checked="" type="checkbox"/> |
| (1) Sensitive Compartmented Information (SCI)   |     | <input checked="" type="checkbox"/> | f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES        |  | <input checked="" type="checkbox"/> |
| (2) Non-SCI   |     | <input checked="" type="checkbox"/> | g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER | <input checked="" type="checkbox"/>  |                                     |
| f. SPECIAL ACCESS INFORMATION   |     | <input checked="" type="checkbox"/> | h. REQUIRE A COMSEC ACCOUNT  |  | <input checked="" type="checkbox"/> |
| g. NATO INFORMATION   |     | <input checked="" type="checkbox"/> | i. HAVE TEMPEST REQUIREMENTS   |  | <input checked="" type="checkbox"/> |
| h. FOREIGN GOVERNMENT INFORMATION   |     | <input checked="" type="checkbox"/> | j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS   |  | <input checked="" type="checkbox"/> |
| i. LIMITED DISSEMINATION INFORMATION  |     | <input checked="" type="checkbox"/> | k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE  |  | <input checked="" type="checkbox"/> |
| j. FOR OFFICIAL USE ONLY INFORMATION  |     | <input checked="" type="checkbox"/> | l. OTHER (Specify)   |  |                                     |
| k. OTHER (Specify)  |     |                                     |  |  |                                     |



**12. PUBLIC RELEASE.** Any information (*classified or unclassified*) pertaining to this contract shall not be released for public dissemination except as provided by the Industrial Security Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release ☐ Direct ☒ Through (*Specify*)

COMMANDING OFFICER, NAVAL RESEARCH LABORATORY, WASHINGTON, DC 20375-5320, CODE 5723.

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)\* for review.  
\*In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

**13. SECURITY GUIDANCE.** The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. (*Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.*)

ACCESS TO CLASSIFIED INFORMATION IS NOT REQUIRED FOR THE PURPOSE OF SUBMITTING A BID/PROPOSAL FOR THIS STATEMENT OF WORK. HOWEVER, PRIOR TO AWARD OF CONTRACT THE SUCCESSFUL CONTRACTOR WILL BE REQUIRED TO HAVE A SECRET FACILITY CLEARANCE, SECRET STORAGE CAPABILITIES, AND PERSONNEL AVAILABLE WITH DOD-GRANTED PERSONNEL SECURITY CLEARANCES COMMENSURATE WITH LEVEL OF ACCESS REQUIRE FOR PERFORMANCE OF CONTRACT.

2001 JAN 17 A 10:15  
CLASSIFIED

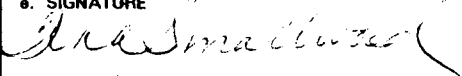
**14. ADDITIONAL SECURITY REQUIREMENTS.** Requirements, in addition to ISM requirements, are established for this contract. ☐ Yes ☒ No  
(*If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.*)

**15. INSPECTIONS.** Elements of this contract are outside the inspection responsibility of the cognizant security office. ☐ Yes ☒ No  
(*If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.*)

**16. CERTIFICATION AND SIGNATURE.** Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

|  |   |   |
|--|---|---|
| a. TYPED NAME OF CERTIFYING OFFICIAL<br>TINA SMALLWOOD | b. TITLE<br>CONTRACTING OFFICER, SECURITY | c. TELEPHONE ( <i>Include Area Code</i> )<br>(202)767-2240/2521 |
|--|---|---|

d. ADDRESS (*Include Zip Code*)  
NAVAL RESEARCH LABORATORY  
4555 OVERLOOK AVE., SW  
WASHINGTON, DC 20375-5320

e. SIGNATURE  


**17. REQUIRED DISTRIBUTION**

|                                     |   |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | a. CONTRACTOR   |
| <input type="checkbox"/>            | b. SUBCONTRACTOR  |
| <input checked="" type="checkbox"/> | c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR          |
| <input type="checkbox"/>            | d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION |
| <input type="checkbox"/>            | e. ADMINISTRATIVE CONTRACTING OFFICER                             |
| <input checked="" type="checkbox"/> | f. OTHERS AS NECESSARY 1221.11.5723.5702                          |

## PERSONNEL QUALIFICATIONS

### 1.0 INTRODUCTION

The following are the minimum requirements necessary to perform the tasks set forth in the Statement of Work:

### 2.0 LABOR CATEGORIES / QUALIFICATIONS

#### 2.1 TASK 1 ESMES and ESM system and subsystem analysis and design.

2.1.1 Labor Category: Principal Engineer  
Support Level: 12 man-months per year  
Education: PhD or MS Electrical Engineering  
Security Clearance: Secret minimum

Experience Requirements: In addition to the above stated education requirement, the following minimum experience is required: 15 years experience in ESM system design, 10 years in simulation and modeling, 15 years working in the field of characterizing EW pulsed emitters. Demonstrated knowledge of EW databases; familiarity with EW signals contained in EWIR, EPL, Kiltling. Demonstrated knowledge of ESMES and scenario generation. Demonstrated knowledge of the requirements, alternatives, workings, interrelationships and tradeoffs of EW systems and leading-edge technologies relevant to these systems. A demonstrated knowledge in current RF generation, digital circuit and software design including digital signal acquisition and processing technologies is required.

Demonstrated knowledge of the current digital logic families to include, but not be limited to, the integration and programming of field programmable gate arrays (FPGAs). Additionally, provide evidence of advanced software development capability including programming in Assembly Language, VHDL, Visual C++ and MATLAB. Demonstrated ability to communicate (i.e., liaison) with leading scientists in the areas of EW technology.

#### 2.2 TASK 2 SOFTWARE DEVELOPEMENT AND SUPPORT .

2.2.1 Labor Category: Software Programmer  
Support Level: 24 man-months per year  
Education: BS in computer science, electrical engineering, math, or physics preferred.

Security Clearance: Secret minimum

Experience Requirements: In addition to the above stated education

preference, the following experience is required: At least two years professional experience programming in C, C++ or Java. Knowledge of the vocabulary and basic concepts of ESM and ESMES. Demonstrated ability to implement ESM algorithmic and data processing requirements in a timely manner in compliance with specified Software Engineering standards. Demonstrated knowledge of VxWorks operating system is desired.

## 2.3 TASK 3 Custom hardware design, development, and repair.

2.3.1 Labor Category: Senior Engineer  
Support Level: 12 man-months per year  
Education: BS Electrical Engineering.  
Security Clearance: Secret minimum

Experience Requirements: In addition to the above stated education requirement, the following minimum experience is required: a minimum of 10 years experience in digital, analog, and microwave circuit design with 5 years experience in ES receiver technology development. Demonstrated knowledge of the requirements, alternatives, workings, interrelationships and tradeoffs of EW systems and the leading-edge technologies relevant to these systems. Demonstrated knowledge of ESMES systems.

Demonstrated ability to design, implement, and test high performance digital and analog subsystems for EW design. Demonstrated knowledge of PC board design, layout, fabrication, testing, system level integration and testing. Demonstrated ability to work with state of the art digital logic, including FPGA's and DSP programming (VHDL). The contractor shall be knowledgeable in VME and PCI bus design. Experience in C/C++ programming is desirable. Demonstrated ability to work with RF microwave assemblies, subassemblies and circuits.

## 2.4 TASK 4 System Engineering

2.4.1 Labor Category: System Engineer  
Support Level: 12 man-months per year  
Education: BS Electrical Engineering  
Security Clearance: Secret minimum

Experience Requirements: In addition to the above stated education requirement, the following experience is required: a minimum of 15 years experience in the field of Electronic Warfare, including 10 years of experience in program management or systems engineering duties related to EW programs. Technical experience in the fields of logic design, RF design, software designs. Demonstrated detailed knowledge of the requirements, alternatives, interrelationships and tradeoffs of electronic warfare support (ES) systems and the leading-

edge technologies relevant to these systems. Demonstrated knowledge of ES system architectures and metrics for tactical EW and surveillance functions aboard aircraft, ships, submarines and spacecraft. Demonstrated ability to define system functional interfaces, incorporate leading-edge EW technology into functional modules and transition them into developed system architectures. Demonstrated knowledge of current and emerging EW technologies. Demonstrated ability to communicate and interact with representatives from industry and government. Demonstrated technical writing skills.

Must be willing to travel overseas for periods of weeks.

Due to the level of interaction with NRL employees, the position is on-site at NRL, Washington DC.

## 2.5 TASK 5 Engineering Assistant

2.5.1 Labor Category: Engineering Assistant  
Support Level: 4 man-months per year  
Education: High School  
Security Clearance: None Required

Experience Requirements: Position requirements for the Engineering Assistant: ability to perform basic soldering operations; familiarity with TurboCAD mechanical CAD software (3 months minimum experience required); the ability to program simple Excel spreadsheets (3 months minimum experience required); familiarity with at least one relational database program; familiarity with Ohm's law and ability to make DVM measurements; ability to assemble and perform basic troubleshooting of personal computers; familiarity with Windows NT , 98, and 2000 installation procedures (3 months minimum experience required).